

TREND OF PARKING DEMAND AT MACHAP NORTHBOUND REST AREA

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Dedicated to

*My beloved family, Wahab, Noriah, Wahida and Daniel
who has faith in me,*

*To all my friend, who stood by me facing difficulty
I will always remember you all*

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ABSTRACT

Transportation planners need previous information on "Parking Generations" in order to propose new developments and to predict changes in the parking generation. Parking Generations depends on various factors such as number of facility, number of shop, and gross floor area. The Institute of Transportation Engineers (ITE) is an international body of transport professionals based in Washington, DC, USA, that publishes and updates the information on parking generation for various types of land use types in USA. In Malaysia there does not exist any parking generation guideline or handbook that can be used to estimate the parking supply. The main objective of this project is to determine the parking demand at Machap Northbound Rest Area located at Expressway. The study was conducted on different days to allow significant variation of traffic volumes. So that, the relationship between the traffic volume on major road and traffic volume entering the rest area can be determined. Each day have different traffic variation. The parameter used in this study was the vehicular volume on major road (expressway). Parking Generation Guideline by ITE was used to collect Parking demand data. The linear regression between parking demand vehicular volume shown that there is positive relationship with value of R^2 equal to 0.95.

ABSTRAK

Perancang pengangkutan memerlukan maklumat mengenai "Generasi Tempat Letak Kenderaan" terdahulu untuk mencadangkan pembangunan baru dan untuk meramalkan perubahan dalam generasi letak kenderaan. Generasi tempat letak kenderaan bergantung kepada beberapa faktor seperti bilangan kemudahan, bilangan kedai, dan kawasan lantai kasar. Institut Kejuruteraan Pengangkutan (ITE) adalah sebuah badan antarabangsa profesional pengangkutan yang berpangkalan di Washington, DC, Amerika Syarikat, yang menerbitkan dan mengemas kini maklumat pada generasi tempat letak kenderaan untuk pelbagai jenis penggunaan tanah jenis di Amerika Syarikat. Di Malaysia tidak wujud garis panduan generasi tempat letak kenderaan atau buku panduan yang boleh digunakan untuk menganggarkan bekalan letak kereta. Objektif utama projek ini adalah untuk menentukan permintaan tempat letak kenderaan di Kawasan Rehat Machap Arah Utara yang terletak di lebuh raya. Kajian ini telah dijalankan pada hari yang berbeza untuk mendapatkan jumlah trafik di lebuh raya yang berbeza. Dengan itu, hubungan antara jumlah trafik di jalan raya utama dan jumlah trafik yang memasuki kawasan rehat boleh ditentukan. Setiap hari jumlah trafik adalah berbeza. Parameter yang digunakan dalam kajian ini adalah jumlah kenderaan di jalan raya utama (lebuhraya). Garis Panduan Penjanaan Parking oleh ITE telah digunakan untuk mengumpul data permintaan Parking. Regresi linear antara permintaan letak kereta jumlah kenderaan menunjukkan bahawa terdapat hubungan positif dengan nilai R^2 bersamaan dengan 0.95.